

IN THE CLAIMS

1. (Currently Amended) A procedure for the control of a respirator device, in which one can set at least two different pressure levels for a breathable gas supply, comprising: ~~and in which~~

capturing at least one-two respirator-treatment parameter is captured-parameters
by measurement technique ~~and is evaluated;~~ and

evaluating the at least two parameters for the control of the-respirator-treatment
pressure; ~~characterized in that,~~ wherein at least ~~one-two~~ of the respirator-treatment parameters is
are modified as a function of a pattern recognition; ~~and wherein,~~ in order to carry out the pattern
recognition, ~~the~~ a time-wise evolution of a pattern of at least ~~one-two~~ respirator-treatment
parameters is captured, at least at intervals, and is analyzed with respect to typical evolution
patterns, and wherein the respirator device is controlled in an adaptive manner such that time-
wise evolution of the at least two respirator parameters maintain, at most, a predefined maximum
difference from the typical evolution patterns.

2. (Currently Amended) A procedure according to claim 1, ~~characterized in that~~
wherein an existing pressure level for breathing support is overlaid, at least temporarily, with a
stimulating stream oscillating at a defined frequency.

3. (Currently Amended) A procedure according to claim 1, ~~characterized in that~~
wherein after a selective evaluation of an oscillatory pressure amplitude, occurring with ~~the~~ a
frequency of ~~the~~ a stimulating stream in the air delivery of a patient, ~~(which corresponds~~
corresponding to a breathing resistance of the patient), a selection of the respective pressure
amplitude is carried out.

4. (Currently Amended) A procedure according to claim 3, ~~characterized in that~~
wherein a CPAP respirator treatment is carried out.

5. (Currently Amended) A procedure according to claim 3, ~~characterized in that~~
wherein at least one electrical signal is evaluated during the pattern recognition.

6. (Currently Amended) A procedure according to claim 1, ~~characterized in that~~
wherein a physical signal is evaluated during the pattern recognition.

7. (Currently Amended) A procedure according to claim 3, ~~characterized in that~~
wherein a derivation of classes of errors is implemented in ~~the~~ a context of the pattern
recognition.

8. (Currently Amended) A procedure according to claim 1, ~~characterized in that~~
wherein an OPS signal (Oscillating Pressure Signal) is evaluated.

9. (Currently Amended) A procedure according to claim 1, ~~characterized in that~~
wherein a static pressure signal is evaluated.

10. (Currently Amended) A procedure according to claim 1, ~~characterized in that~~
wherein a pressure variation is evaluated.

11. (Currently Amended) A procedure according to claim 1, ~~characterized in that~~
wherein a flow signal is evaluated.

12. (Currently Amended) A procedure according to claim 1, ~~characterized in that~~
wherein a signal proportional to at least one of the flow signal and/or to a pressure-dependent
signal is evaluated.

14. (Currently Amended) A procedure according to claim 1, ~~characterized in that~~
wherein, in the pattern recognition, distinctive form features are evaluated.

15. (Currently Amended) A procedure according to claim 1, ~~characterized in that~~ wherein, in the pattern recognition, distinctive time features are evaluated.

16. (Currently Amended) A procedure according to claim 1, ~~characterized in that~~ wherein, following the pattern recognition, a class assignment is carried out.

17. (Currently Amended) An apparatus for monitoring at least ~~one~~two respirator-~~treatment~~ parameters in the breathing-gas supply to a patient, ~~featuring~~comprising:

at least ~~one~~two ~~sensor~~sensors for the capture of the time-wise evolution of the respirator-~~treatment~~ parameters, which ~~sensor is~~sensors are arranged in the area of an air delivery, which encompasses a respirator device as well as a connecting installation; ~~characterized in that~~ wherein the ~~sensor (5) is~~sensors are connected to an analyzer (11) which carries out a pattern recognition and which is attached to a control (6) for the modification of at least ~~one~~two respirator-~~treatment~~ parameters, and wherein a time-wise evolution of a pattern of at least two respirator- parameters is captured, at least at intervals, and is analyzed with respect to typical evolution patterns, and wherein the respirator device is controlled in an adaptive manner such that time-wise evolution of the at least two respirator parameters maintain, at most, a predefined maximum difference from the typical evolution patterns.

18. (Currently Amended) An apparatus according to claim 17, ~~characterized in that~~ wherein the analyzer (11) is coupled to a storage (12) for the supply of comparative patterns.

19. (Currently Amended) An apparatus according to claim 17, ~~characterized in that~~ wherein the analyzer (11) is coupled with a classifier (13).

20. (Currently Amended) An apparatus according to claim 17, ~~characterized in that~~ wherein the analyzer (11) features a time-wise evolution analyzer.

21. (Currently Amended) An apparatus according to claim 17, ~~characterized in that~~
wherein the analyzer (11) features a form analyzer.

22. (Currently Amended) An apparatus according to claim 17, ~~characterized in that~~
wherein the analyzer (11) for pattern recognition is designed as part of a respirator device for the
implementation of CPAP respirator treatment.

23. (Currently Amended) An apparatus according to claim 17, ~~characterized in that~~
wherein the analyzer (11) features a storage for at least one measured variable.

24. (Currently Amended) An apparatus according to claim 17, ~~characterized in that~~
wherein the control (6) features an adaptation element for implementing a pressure modification
as a function of the stored measured-variable.

25. (Currently Amended) An apparatus according to claim 17, ~~characterized in that~~
wherein the analyzer (11) features at least one storage for data of a patient population.

26. (Currently Amended) An apparatus according to claim 17, ~~characterized in that~~
wherein the control (6) features an adaptation element for the implementation of a pressure
modification as a function of the stored information on the patient population.

27. (Currently Amended) An apparatus according to claim 17, ~~characterized in that~~
wherein the analyzer (11) is provided with a neuron network.

28. (Currently Amended) An apparatus according to claim 17, ~~characterized in that~~
wherein the analyzer (11) is provided with fuzzy logic.

29. (Currently Amended) An apparatus according to claim 17, ~~characterized in that~~
wherein the sensor (5) is connected to at least one scanning element.

30. (Currently Amended) An apparatus according to claim 29, ~~characterized in that~~
wherein the scanning element is connected to a band pass filter.

31. (Currently Amended) An apparatus according to claim 30, ~~characterized in that~~
wherein the band pass filter is designed as a digital filter.

32. (Currently Amended) An apparatus according to claim 17, ~~characterized in that~~
wherein the control (6) is a generator for the production of receptor-stimulating pressure signals.

33. (Currently Amended) An apparatus according to claim 17, ~~characterized in that~~
wherein the analyzer (11) features separate evaluations for inspiration- and for expiration-
pressure readings.

34. (Currently Amended) An apparatus according to claim 33, ~~characterized in that~~
wherein different pressure-control characteristics are provided for inspiration- and expiration-
pressure readings.
